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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/785,024      | 02/15/2001  | Alfred P. Hildebrand | 068363.0185         | 3015             |

23640 7590 07/23/2004

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| EXAMINER |
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NGUYEN, JIMMY H

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| ART UNIT | PAPER NUMBER |
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2673

DATE MAILED: 07/23/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

09/785,024

**Applicant(s)**

HILDEBRAND, ALFRED P.

**Examiner**

Jimmy H. Nguyen

**Art Unit**

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 15 February 2001.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-28 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 June 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

1. This Office Action is made in response to applicant's papers filed on 02/15/2001. Claims 1-28 are currently pending in the application. An action follows below:

#### ***Specification***

2. The disclosure is objected to because of the following informalities: "TPI", page 4, line 12, must be spelled out at least once in the disclosure, in order to define this term.

Appropriate correction is required.

#### ***Drawings***

3. The drawings were received on 07/21/2003. These drawings are acceptable.

#### ***Claim Objections***

4. Claims 9 and 10 are objected to under 37 CFR 1.75(a) because although these claims meet the requirement 112/2d, i.e., the metes and bounds are determinable, however, these claims should depend upon on claim 8 because "the touchpad" is recited in claim 8 rather than claim 1.

It is in the best interest of the patent community that applicant, in his/her normal review and/or rewriting of the claims, to take into consideration these editorial situations and make changes as necessary.

#### ***Claim Rejections - 35 USC § 112***

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Regarding claim 19, the word "TPI" renders the claim indefinite because it is unclear what "TPI" stands for.

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7. It is noted Applicant that due to the rejection under 35 USC 112 above, the following art rejection to claim 19 is based as best understood by the examiner.

***Claim Rejections - 35 USC § 102***

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. Claims 1, 2, 5, 6, 8, 14, 17, 18, 20, 21, 24 and 25 are rejected under 35 U.S.C. 102(b) as being anticipated by Richard et al. (USPN: 5,250,931), hereinafter Richard.

As per claims above, the claimed invention reads on Richard as follows: Richard discloses a device (see fig. 4) comprising a housing (figs. 4 and 10, col. 7, line 44), a virtual image display (a miniature virtual display 32, fig. 4, col. 4, line 21) having a microdisplay (an image generation apparatus 12, 14/41, see figs. 1 and 5) for displaying a source object (an unmagnified version of a virtual image 50, which is generated by the image generation apparatus 12, 14/41, see fig. 8) and an optical system (a lens system 18, see fig. 1 or an optical system 40, see fig. 5, col. 4, lines 40-45) for magnifying the image ten times (col. 4, lines 1-3), a finger controllable mechanism (a cursor control switch 37, fig. 4) including a touchpad (112) (see fig. 10, col. 4, lines 64-66, col. 7, line 43), and a processor (a controller 102, fig. 9). Further, as noting in fig. 8 and the corresponding description, col. 6, line 23 through col. 7, line 16, Richard discloses the logic comprising logic for causing a source object (an image 50) to be displayed, logic modifying the displayed source object (50) in response to a user's selection by using the touchpad, logic for causing to display a keyboard (55) and logic for displaying a cursor (a virtual

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cursor image 53, fig. 8, col. 6, line 31). Accordingly, the elements in the claims are read in the reference.

***Claim Rejections - 35 USC § 103***

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claims 7, 9-13, 15, 16, 19 and 26-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Richard.

As per claims 7, 9 and 10, Richard discloses all the claimed limitations except for the particular locations of the touch pad as presently claimed. However, Applicant has not disclosed that the particular location as presently claimed solves any stated problem, provides an advantage or is used for any particular purpose. Further, at the time of the invention was made, it would have been obvious to a person of ordinary skill in the art to locate the Richard touchpad as presently claimed, since a such modification would have involved a mere change in the location of a component. One of ordinary skill in the art, furthermore, would have expected Applicant's invention to perform equally well with the touchpad disposed either as presently claimed or as shown in fig. 4 of the Richard reference because the touchpad ability to perform its function of controlling the cursor and selecting objects is not effected by the location of the touchpad. Further, a change in location is generally recognized as being within the level of ordinary skill in the art, see In re Japikse, 86 USPQ 70 (CCPA 1950). Therefore, it would have been obvious to

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a person of ordinary skill in this art to modify Richard to obtain the invention as specified in claims above.

Regarding to claims 11-13, 15 and 16, Richard discloses all the subject matter claimed with the exception of the particular sizes of the housing as presently recited in claims 11 and 12, the virtual image display as presently recited in claim 13, an area of the source object as presently recited in claim 15, or an area of an optical surface of the viewing optic as presently recited in claim 16. However, Applicant has not disclosed that the particular size of the housing, the virtual image display, an area of the source object, or an area of an optical surface of the viewing optic solves any stated problem, provides an advantage or is used for any particular purpose. One of ordinary skill in the art, furthermore, would have expected Applicant's invention to perform equally well with any size of the housing, the virtual image display, an area of the source object, or an area of an optical surface of the viewing optic because the housing, the virtual image display, an area of the source object, or an area of an optical surface of the viewing optic ability to perform its function is not effected by the location of the housing, the virtual image display, an area of the source object, or an area of an optical surface of the viewing optic. Therefore, absent a showing of criticality it would have been within the level of skill in the art and obvious to one having ordinary skill to engineering design the size an element as desired as was judicially recognized in re Rose, 105 USPQ 237 (CCPA 1955) and in re Reven, 156 USPQ 679 (CCPA 1968).

Regarding to claims 19 and 26-28, as discussed in the rejection under 35 USC 102 above, Richard discloses all the limitations except for the particular keyboard layout as presently claimed, i.e., the particular locations of the keys of the keyboard. However, Applicant has not

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disclosed that the particular locations of the keys solve any stated problem, provide an advantage or are used for any particular purpose. Further, at the time of the invention was made, it would have been obvious to a person of ordinary skill in the art to locate the keys of the keyboard in a particular layout as presently claimed because a such modification would have involved a mere change in the location of a component. One of ordinary skill in the art, furthermore, would have expected Applicant's invention to perform equally well with the Richard keyboard layout as shown in fig. 8 or as presently claimed because the key ability to perform its function of entering data is not effected by the location of the key. Further, a change in location is generally recognized as being within the level of ordinary skill in the art, see **In re Japikse, 86 USPQ 70 (CCPA 1950)**. Therefore, it would have been obvious to a person of ordinary skill in this art to modify Richard to obtain the invention as specified in claims above.

12. Claims 3, 4, 22 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Richard, and further in view of Krueger et al. (USPN: 5,999,950), hereinafter Krueger.

Regarding to these claims, as discussed above, Richard discloses all the claimed limitations except for the features, "a position of the cursor within the lateral footprint of the displayed keyboard is displayed by having a key of the keyboard at which the cursor logic positions the cursor change in appearance of the key as compared to when the cursor is not positioned at that key" as presently recited in claims 3 and 22, and "the change in appearance of the key is a change in the appearance of a border of the key", as presently recited in claims 4 and 23.

However, Krueger expressly teaches the above underlined features (see col. 9, lines 55-60. It would have been obvious to a person of ordinary skill in the art at the time of the invention

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was made to provide the logic for performing the above underlined features in the Richard device, as suggested by Krueger, because this would provide a user quickly recognizing the current position of the cursor.

*Conclusion*

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Luo (USPN: 6,378,234 B1, see fig. 14) and Hanson (USPN: 5,483,235, see fig. 2), both disclose keys of the keyboard arranged in a circular layout.

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jimmy H. Nguyen whose telephone number is (703) 306-5422.

The examiner can normally be reached on Monday - Thursday, 8:00 a.m. - 5:00 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bipin Shalwala can be reached at (703) 305-4938.

**Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks

Washington, D.C. 20231

**or faxed to:**

**(703) 872-9314 (for Technology Center 2600 only)**


Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).



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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

JHN  
July 21, 2004



Jimmy H. Nguyen  
Examiner  
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